ST EUROPEAN CONFERENCE SMALL FOREST HOLDINGS



ROME » ITALY FAO Headquarters

Integration of the threats and risks in forest management (fire, pests and diseases, invasive species)

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Climate change is here





Robust signal (origianl color)

Conflicting signal

No change or no robust signal

MEAN OF DAILY MEAN TEMPERATURE - CMIP6 - CHANGE - REL. TO 1850-1900 - WARMING 2°C - ANNUAL

Credit: C3S/ECMWF. Atlas version 1.4



Extreme heat





Drought





Soil moisture



MEAN SOIL SHALLOW MOISTURE CONTENT - CMIP6 - CHANGE -Robust signal (origianl color) REL. TO 1850-1900 - WARMING 2°C - ANNUAL No change or no robust signal Credit: C3S/ECMWF. Atlas version 1.4 Conflicting signal * ā ş 1.71 -2.57 2 PROGRAMME OF THE EUROPEAN UNION Climate Change Service

Ongoing drama



2001-2010



2013-2023



Forest cover loss due to fire





2013-2023



Working forests



Natural forests and monocultures

Carbon sink



Carbon sink is diminishing (rapidly)



Million tonnes of CO₂ equivalent (MtCO₂e)



Economic importance of forests



Share of Forestry and Wood Processing Industries Gross Value Added in Gross Domestic Product of EU Member States in 2021



Economic importance of forests



Share of Wood Use In Wood Processing Industries of EU Member States in 2017 - Sorted by Share of Wood Pulp Industry 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% Sweden Denmart Lithuania Bullearia Netherlands Luxembure Finland Slovatia Austria Czechia France Poland Estonia Germany Slovenia Romania Greece Malta Portugal spain Belejum HUNBAN COatia reland it cyprus Latvia 1×ally Wood pulp industry Panel industry Sawmill industry

Some numbers...



Category/Price	Slovenia	Sweden	Portugal
Sawlogs EUR/m3	100-150	50-85	120-180
Pulp/panel wood EUR/m3	25-50	35-50	25
Ton of CO ₂ in ETS over last year EUR	60-83	60-83	60-83
Hectare of forest EUR	5.900-8.300	7.130	2.050
Hectare of arable land EUR	23.000	12.300	11.800
Type of management	Closer to nature	Clearcutting	Eucalyptus plantations
Growing stock m ³ /ha	550 320	200	200
Net present value of revenue over lifetime of the forest with 4% and 1% discount rate	3.637 - 11.382 8.596 - 20.557	3.265 - 4.412	1.885 - 3.097

Revisiting assumptions...



Old assumption	Concern	
Forests are a profitable investment	In many cases, forest ownership is not profitable	
	Depends on the quality of the forest, the price of wood and the price of labour	
	Best if the owner also does (some of) the work	
Revenues from wood cover the costs of providing other ecosystem services	Wood market asymetry	
	Some ecosystem services are already more economically valuable than wood (carbon, tourism in tourist regions)	
	Markets for ecosystem service do not exist yet, emerging	
	Regulation vs. incentives	
Risk of disturbances is not critical to forest management	Existing forest management planning systems assume uninterrupted growth towards a known climax	
	Response to disturbances – economy and ecology?	
	How to adapt to large-scale disturbances	

Some thoughts...



- Closer to nature forestry (CNF) is economically sustainable in the long term, can provide multiple ecosystem services and reduce risks of disturbances
- Time dimension of transition in forests
- Expectations drive the management decisions: regular revenue source vs. capital reserve
- The latitude of approaches to CNF needs to be broadened regional, local, and landscape-level adaptive management are needed
 - Payment for Ecosystem Services: not expensive, good practices exist in Europe
 - The cost of professional services is very low compared to the value of the ecosystem services – a good investment
 - Role of capacity building, access to information and digitalisation to support the decision-making of forest owners, overcome fragmentation and make markets fair(er)
 - Technology development for safety and efficiency

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